



The
Prairie Astronomer

President's Report

by Dave Scherping

Thanks for electing me to the position of President for this year. I enjoyed serving as Program Chairman last year and want to thank all of those who helped out by giving presentations. I'm sure Dave Knisely will do a great job this year.

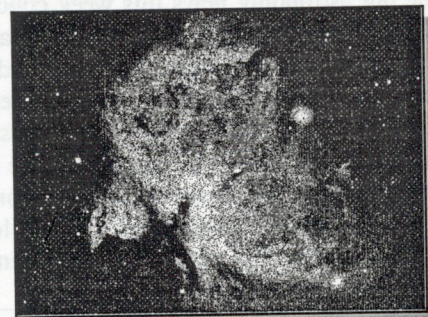
My first duty as president was to appoint a team of three individuals to perform a financial audit per last year's revision to the PAC Bylaws. The individuals are: Eric Hubl, Rick Johnson, and Ron Veys. Let's all thank them for performing this important but unattractive duty. Thanks also to Lee Thomas for his years of service as PAC Treasurer and to John Bruce for accepting the Treasurer's responsibilities this year. There's no doubt that the Treasurer position carries a great deal of responsibility and requires a great deal off time and commitment.

Doug Bell has accepted the responsibility of Observing Chairman. We all appreciated the efforts Jason Stahl put into this last year, especially in coordinating the Mahoney State Park public star parties. I look forward to Doug's input this year.

The 13" club scope is nearly completed. I hope to have the finished scope at the November meeting. At the last meeting, the club discussed the details of loaning out the scope to members. Tentatively, the scope will remain at my house and may be checked out for a maximum of one week. There will be a short train-

ing/certification procedure to go through the first time you check it out. There will also be a requirement for the scope to be available at the monthly star parties and at the Mahoney star parties. The club also discussed purchasing a few eyepieces for the scope, and we will vote on it at the November meeting.

The coming year has much in store for PAC members. This spring, along with the Omaha club, we will resume the monthly Mahoney star parties and there's the monthly star parties as well. In May, we plan to participate one again in Astronomy Day and will need several volunteers for that. July will feature the 2nd annual Nebraska Star Party at Merritt Reservoir. Those interested in helping out with NSP should contact Tom Miller. In August, we will again have our PAC picnic. There are many opportunities for members to get involved, including assisting with some of the activities described above, helping out at Hyde Observatory on Saturday nights, and giving programs at the monthly meetings. Contact any of the club officers for more information.



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WANTED: E-Mail Addresses

As an update the regular PAC address/phone list, we've decided to start including club members e-mail addresses.

If you have an address on any of the major on-line services (Compuserve, Prodigy, Online America, Delphi, etc.) or on the Internet, please pass along your name and address information to Lee Thomas at the next meeting, or send the information to one of the following e-mail addresses:

lthomas@unlinfo.unl.edu

or

llt@nebrwesleyan.edu

Also remember that if you have an article or picture for the newsletter, you can send it to John Lortz using the following e-mail address:

70571.1714@CompuServe.com

SKY & TELESCOPE NEWS BULLETINS

from the CompuServe Information Service

NOVEMBER 19, 1994

"MISSING" RED DWARFS

The big astronomy news this week concerns nothing less than the fate of the universe itself. On Tuesday, the 15th, two groups of astronomers announced that they had failed in independent searches with the Hubble Space Telescope to detect large numbers of red-dwarf stars. Red dwarfs were thought to exist abundantly in the outer reaches of the Milky Way and other galaxies, and in the minds of many astronomers they were a key to the so-called "missing mass" problem. Simply put, the amount of mass in stars and other luminous objects we see

represents no more than 10 percent of the matter needed to keep structures like spiral galaxies together. The other 90 percent, termed "dark matter," must exist as dim red dwarfs or as some exotic undiscovered form of particle. The dwarfs were considered too dim for ground-based telescopes but within the grasp of the HST. So where *is* the missing mass? Researcher John Bahcall, who led one of the teams, says the ongoing mystery is "the most fundamental problem we have in astronomy today, and certainly the most vexing problem that we have in particle physics." Among its other ramifications, if the dark matter simply does not exist -- if all the matter we see is really all there is -- then the universe will expand without end.

NO LUNAR ICE?

Last March the news and computer networks were abuzz with word that the Clementine spacecraft -- then in orbit around the Moon -- had discovered water ice on the floor of perpetually shadowed craters at the lunar poles. Actually, no such discovery was made -- the spacecraft operating team was successful only in taking the radar measurements. Recently, at a meeting in early November, scientists reported that the preliminary analysis of Clementine's radar search for water on the Moon is still inconclusive. According to astronomer Richard Simpson, "The data shows no clearly unambiguous icy signature, but the analysis has only just begun." While no large areas of frost are present at the lunar poles, ice could still exist if mixed with lunar soil.

PENUMBRA OBSERVED!

A penumbral eclipse of the Moon occurred on the night of November 17th, with mid-eclipse at 6:44 Universal time on the 18th. David Levy says he and Peter Jedicke barely detected a dusky appearance of the Moon's northern limb, even though that area was deep in the penumbral shadow.

LEONID REPORTS SOUGHT

If anyone has visual reports or photographs of last week's Leonid meteor shower, we'd love to hear from you. Contact SKY & TELESCOPE via CompuServe at 70007,2762 or via Internet at skytel@cfa.harvard.edu.

NOVEMBER 26, 1994

LUNAR ASTEROIDS?

According to a study by astronomer William Bottke at the University of Arizona, some fraction of the tiny asteroids discovered whizzing past Earth in recent years may have been blasted into space from the Moon. Many of these asteroids have orbits very similar to Earth's, and Bottke's computer

(Continued on page 3)

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simulations show that some of objects flying off the Moon after a major impact within the last 10 or 20 million years would have gone into heliocentric orbits quite like those of the Earth and Moon. Also, such objects only survive for about that long before colliding with us or being flung from the solar system.

RETURN OF THE GREENWICH CLOCK

After an absence of 275 years, the clock used in establishing Greenwich Mean Time is being returned to its original home. Made by Thomas Tompion, known as the father of English clockmaking, the clock will be restored to its original setting in the Octagon Room of the Royal Greenwich Observatory near London. In the late 17th century it was used to determine that the earth rotated at an even rate. Those findings formed the basis of all measurements of time and space more than 2 1/2 centuries. The clock was sold in 1719 and wound up in the ancestral home of the Earl of Leicester before its return to the observatory.

MOON AND VENUS DELIGHT

Those of you up before dawn on November 30th will be treated to a stunning pairing of dazzling Venus and the thin crescent of a Moon just three days from new. You'll find them about 10<dg> to 15<dg> up in the southeast.

CATCHING P/BORRELLY

The nearly new Moon gives you a chance to resume the hunt for Periodic Comet Borrelly, which reached perihelion on November 1st. The comet is well up in the eastern sky late at night, parked among the stars of Gemini and Cancer and headed north toward Ursa Major. Some observers have commented that the comet had an obvious fan-shaped anti-tail, pointed *toward* the Sun, the second week of November. Its total brightness is estimated near 8th magnitude at present. A detailed chart for finder chart appears in December's S&T on page 76, but here are positions for the coming week, given for 0h Universal time.

R.A. (2000) Dec.

Nov 27	8h 47m	+33.4<dg>
Nov 29	8 51	+35.0
Dec 1	8 56	+36.6

THIS WEEK'S "SKY AT A GLANCE"

Daily events in the changing sky from the editors of SKY & TELESCOPE

NOV. 29 -- TUESDAY

Go out about an hour before sunrise Wednesday morning and look low southeast for the waning crescent Moon in beautiful conjunction with brilliant Venus. Spica is to their upper right.

Can you follow Venus and the Moon right through sunrise?

DEC. 2 -- FRIDAY

New Moon (exact at 6:54 p.m. Eastern Standard Time).

DEC. 3 -- SATURDAY

About 20 to 35 minutes after sunset, you have a chance to spot a very thin, hairline crescent Moon just above the southwestern horizon. The Moon is about 22 hours from new when it's visible from the East Coast, 25 hours from new from the West. Try binoculars.

THIS WEEK'S PLANET ROUNDUP

VENUS is the brilliant "morning star" low in the east-southeast before and during dawn; it's getting higher every week. Spica is to its upper right.

MARS, near Regulus in Leo, rises around 10:30 p.m. and is high in the south at dawn. In a telescope, its apparent diameter has grown to 8.5 arc seconds -- still very tiny.

SATURN, in Aquarius, shines in the south at dusk. It sets around 11 p.m.

A message to all new officers (and all other members too!)

As you can see from the (lack of) size of this newsletter, only one article was received for this month's newsletter. I'm sure the main reason is the officer turnover that occurred at the last meeting.

So, as a reminder to the new officers and to everyone else that would like to send something for publication in the newsletter, here is where you can send YOUR materials for submission:

John Lortz
11684 Meredith Ave.
Omaha, NE 68164

Articles can also be sent via e-mail to:

70571.1714@CompuServe.com

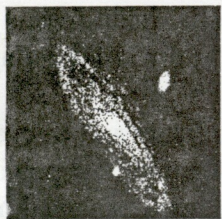
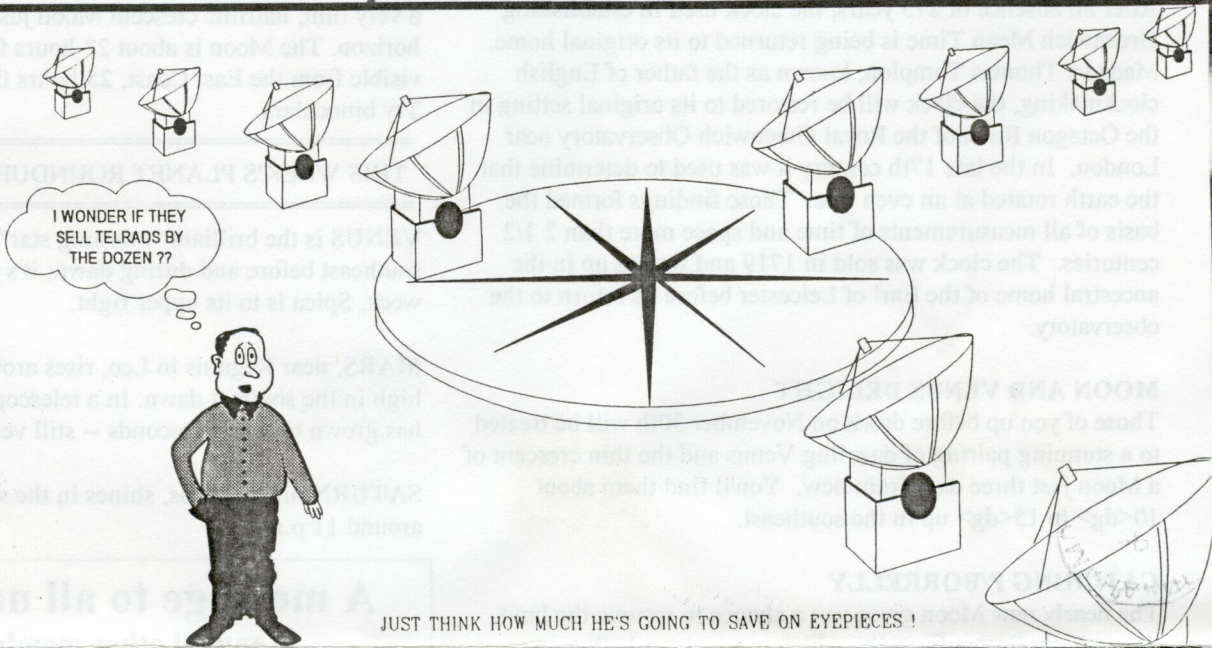
If possible, please send articles no later than 10 days before the next meeting.

ASTRO MAN VI

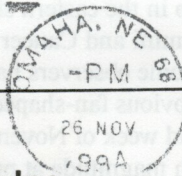
By Dave Scherping

ASTRO-MAN'S LATEST VENTURE....

THE FIRST AMATEUR OWNED AND OPERATED VERY LARGE ARRAY (VLA) OF DOBSONIAN RADIO TELESCOPES LOCATED AT THE INFAMOUS ATLAS SITE NEAR FIRTH, NEBRASKA.



The Prairie Astronomer
 c/o The Prairie Astronomy Club, Inc.
 P.O. Box 80553
 Lincoln, NE 68501



First Class Mail

Next Meeting
November 29, 1994

94027 9/95 FS 08
 Mr. Earl Moser
 P. O. Box #162
 Hickman NE 68372

11-94

Please Notice: If there is an asterisk on your mailing label it is time for you to renew your PAC membership!

inside...

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